

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A method of ~~simulation~~ simulating the economics of airlines using a processor, comprising the steps of:

~~providing processing means;~~

~~establishing an agent-based air carrier service evolution model (ACSEM) and processing said ACSEM on said processing means through the steps of:~~

~~(a) entering information concerning bankrupt airlines, newly created airports, and financial conditions at each airline;~~

~~(a) entering information into the processor regarding an initial number of airlines and their scheduled flights to create an airline structure;~~

~~(b) entering information into the processor regarding the status of the simulation;~~

~~(c) eliminating bankrupt airlines from the airline structure;~~

~~(d) determining whether to create a new airport within the airline structure;~~

~~(e) entering data related to current financial conditions of each airline within the airline structure;~~

~~([[b]])f) individually setting and modifying at least one of the following parameters according to a desired profit for each airline:~~

~~fares per airline and per origin-destination;~~

~~aircraft size per airline, per aircraft;~~

~~scheduled departure per airline, per aircraft, per departure;~~

~~fraction of seats reserved for business, per airline, per itinerary leg; and~~

cycles around itinerary, per airline, per aircraft;

([[c]]g) simulating at least one of the following conditions and modifying said at least one condition according to a predetermined profit margin of each airline:

sell aircraft;

buy aircraft;

shorten itinerary; and

lengthen itinerary;

~~(d) entering information concerning a newly established airline;~~

(h) determining whether to create a new airline within the airline structure;

([[e]]i) for each airline in the airline structure, including said newly established airline, determining scheduled flights available to fly from a point of departure to a point of destination

([[f]]j) for each said airline in the airline structure, including said newly established airline, entering information concerning passenger demand;

([[g]]k) entering information concerning leisure passengers and business passengers;

([[h]]l) cyclically simulating a day's traffic at predetermined time intervals for each of said airlines and each of said aircraft flights, comprising the steps of:

requesting what is the state of an aircraft for one of said flight,

exercising a simulated action in accordance with the state of the aircraft, and

repeating said steps of the simulating a day's traffic, each predetermined period of time for the day; and

(([i]]m) repeating the steps (([a-h]]b-l in sequence to maximize profit-of the airline.

2. (Cancelled)

3. (Currently Amended) The method of claim 1, wherein in the step (([a]]d), said information concerning newly created creation of new airports includes place determining the location and the date of establishing creation of the new airports.

4. (Currently Amended) The method of claim 1, wherein in the step (([a]]d), said information concerning newly created airports-creation of new airports includes determining anticipation parameters.

5. (Currently Amended) The method of claim 1, wherein in the step (([a]]e), said information data concerning financial conditions at each airline includes information on opportunity to sell airport offices and aircrafts.

6. (Currently Amended) The method of claim 1, wherein in steps (([b]]f) and (([c]]g), modifying of each of said parameters and each of said conditions is performed individually while holding the other of said parameters constant.

7. (Currently Amended) The method of claim 1, wherein in the step (([f]]j), the information concerning passenger demand is entered as explicit data.

8. (Currently Amended) The method of claim 1, wherein in the step ([f]j), the information concerning passenger demand is generated by said processing means in accordance with a predetermined statistical model.

9. (Currently Amended) The method of claim 1, wherein in said step ([h]l), said states of the aircraft include: boarding; request take-off; take-off; enroute; request landing; landing; and idle.

10. (Original) The method of claim 9, wherein said step of requesting the state of the aircraft is repeated each minute.

11. (Original) The method of claim 9, wherein in the state "boarding", the simulated action includes boarding of passengers with tickets of this flight.

12. (Original) The method of claim 9, wherein in the state "request take-off", the simulated action includes granting take-off depending on capacity of the airport and demand.

13. (Currently Amended) The method of claim 9, wherein in the state "take-off", the simulated action includes paying a take-off fee.

14. (Currently Amended) The method of claim 9, wherein in the state "enroute", the simulated action includes paying an enroute fee, based on fuel consumption and reflecting area congestion.

15. (Original) The method of claim 9, wherein in the state "landing", the simulated action includes disembarking passengers and collecting fares with discount to penalize late arrival.